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PATENT SPECIFICATION

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(19)

(54) FABRIC LABELS

(71) We, GEORGE H. WHEATCROFT & COMPANY LIMITED, of Haarlem Mill, Wirksworth, Derby, DE4 4BH, a British Company, to hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to labels made of fabric as used in the garment and other textile industries.

It is known to supply separate adhesive-backed labels on a carrier strip of silicone release paper. Such adhesive-backed labels are however, liable to work loose when the garments or other articles are washed and it is therefore, customary to use adhesive-backed labels only on unwashable goods.

This invention is concerned more particularly with adhesive-free labels made of fabric which are commonly applied to garments and other articles by sewing. Such labels are usually printed in a continuous strip but, when cutting individual labels from the strip, it is desirable to effect a sealed cut, that it with a heated blade, to prevent the cut edges of the labels from fraying. For this reason some users purchase their labels ready cut and packed in a carton.

The present invention arose from an attempt to provide separate adhesive-free labels of fabric in a roll or other continuous strip. A continuous strip has the advantage that it can be used in a dispenser which avoids the wastage which can occur in handling cut labels from boxes or cartons and which provides a more convenient presentation of cut labels to the user.

According to a first aspect of this invention, there is provided a strip of separate labels made of fabric in which the labels are applied to a carrier strip coated with adhesive, the label fabric being treated in such a way that the labels can be peeled from the strip free from adhesive.

The label fabric is preferably treated by application of a release coating which serves two purposes: (1) to facilitate release from the adhesive and (2) to prevent fraying.

According to a second aspect of the invention, there is provided a method of making separate labels of fabric, in which a strip of carrier material is treated on one face with adhesive, a strip of fabric is treated on one face so that labels to be formed from the strip of fabric can be peeled from the strip free from adhesive, the treated faces of the carrier material and fabric are joined together and the fabric is then cut to form a strip of separate labels releasably mounted on the carrier strip.

The strip of fabric is preferably treated with a material which not only prevents permanent adhesion of the adhesive but also prevents fraying. It is then possible for the fabric to be cold cut, which is an advantage because the cutting process can be performed simultaneously with a printing process.

A particular form of the invention will now be described by way of example with reference to the accompanying drawings, in which:—

Figure 1 shows in schematic form a method of applying adhesive material to the carrier strip and;

Figure 2 shows in schematic form a method of applying a release/frayproofing material to a strip of fabric and of laminating the fabric to the adhesive coated carrier strip.

Referring firstly to Figure 1, a strip of silicone backed paper is fed from a roll 1 to a spraying mechanism 2, which applies adhesive to the face of the strip opposite the silicone backing. The strip then passes through a nip between rollers 3, where the adhesive is distributed on the surface of the strip. The strip then passes through a drying oven 4, tensioning rollers 5 and is formed into a roll 6. The adhesive used in this particular method is a cross-linked acrylic emulsion such as Vantac 315, manufactured by British Oxygen Company Limited. The

[Price 33p]

strip of roll 1 needs to be silicone backed or to carry some other release agent on its reverse face so that the latter does not adhere to the adhesive when the strip is formed into roll 6.

Referring now to Figure 2, a strip of the fabric to form the labels (e.g. an acetate having the appearance of satin) is unwound from a roll 7 and passes under a spraying mechanism 8, where it is treated with a release agent to facilitate removal of the labels from the adhesive backing strip. The release agent also serves to prevent the labels fraying. In this particular method the release agent is prepared starting from a cross-linking acrylic emulsion such as Texicril 13—101, manufactured by Scott Bader Limited. To this is added 5% by weight of emulsion of paraffin. It is the cross-linking acrylic emulsion which is responsible for making the labels fray-proof and the paraffin emulsion which reduces the adhesive properties of the strip. The strip of fabric then passes between rollers 9 which distribute the release agent and thence into a drying oven 10. From the drying oven the fabric strip passes to rollers 11, where it is laminated with the backing paper supplied from roll 6. The laminated strip then passes between tensioning rollers 12 and is formed into a roll 13.

In a separate operation, the laminated strip from roll 13 is fed to a printing and cutting machine, where the fabric is printed and cold cut into individual labels. The cutting blades used preferably move into and out of contact with the fabric with a printing head to ensure that the positions of the cuts are coordinated with the positions of the printed impressions. The cut extends of course only through the fabric and not through the backing strip.

After completion of the printing and cutting process, the strip is again formed into a roll and is baked at a temperature sufficient to stabilize the inks against future washing and dry cleaning but insufficient to affect the adhesive or release agent. Thus, on the backing strip are washable labels having fray-proof edges, the said labels being capable of being peeled freely and individually from the carrier strip, free from any adhesive. The roll of labels can be mounted in a suitable dispenser and can be peeled off by hand or can be removed and dispensed automatically by the dispenser.

WHAT WE CLAIM IS:—

1. A strip of separate labels made of fabric in which the labels are applied to a carrier strip coated with adhesive, the label fabric being treated in such a way that the labels can be peeled from the strip free from adhesive.

2. A strip of fabric labels according to Claim 1, in which the label fabric carries a release coating of a material which (a) facilitates release from the adhesive so that the labels can be peeled from the strip free from adhesive and (b) prevents fraying.

3. A strip according to Claim 2, in which the release coating includes a cross-linked acrylic emulsion.

4. A strip according to any preceding claim, in which the adhesive includes a cross-linked acrylic emulsion.

5. A strip according to any preceding claim, in which the carrier strip is siliconised on the face opposite to the adhesive.

6. A supply of fabric labels in the form of a strip substantially as described formed into a roll and housed in a dispenser.

7. A method of making separate labels of fabric, in which a strip of carrier material is treated on one face with adhesive, a strip of fabric is treated on one face with a release agent so that to be formed from the strip of fabric labels can be peeled off the strip free from adhesive, the treated faces of the carrier material and fabric are joined together and the fabric is then cut to form a strip of separate labels releasably mounted on the carrier strip.

8. A method according to Claim 7, in which the release agent is such that it prevents the labels from fraying; and in which the fabric is cold cut.

9. A method according to Claim 8, in which the strip of fabric is treated with a thin coating of cross-linked acrylic emulsion which acts as a release agent and also prevents fraying.

10. A method according to Claim 7, 8 or 9, in which the adhesive is applied in the form of a thick coating of a cross-linked acrylic emulsion.

11. A method according to any one of Claims 7 to 10, in which the fabric is printed and cut to form the labels, said printing and cutting taking place after lamination of the fabric to the carrier strip.

12. A method according to any one of Claims 7 to 11, in which the strip of carrier material (1) has a release coating on the face opposite that which is treated with adhesive, (2) is formed into a roll after application of the adhesive and (3) is unrolled during joining together of the carrier material and fabric.

13. A method according to Claim 7 and substantially as described herein with reference to and as illustrated in the accompanying drawings.

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1 SHEET *This drawing is a reproduction of the Original on a reduced scale*

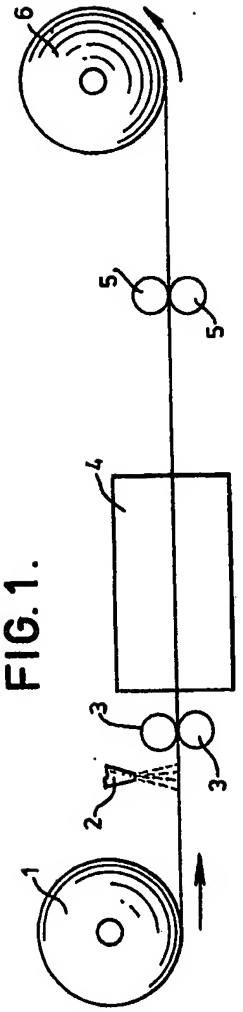

FIG. 1.

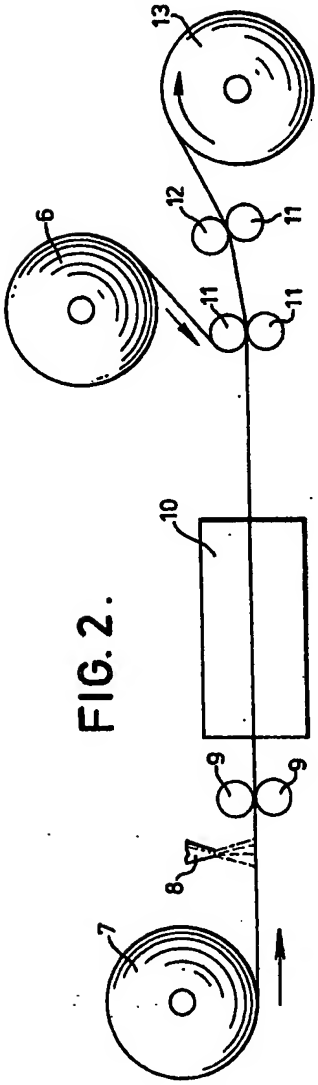

FIG. 2.